Notice of Allowability	Application No.	Applicant(s)	
	09/976,003	CHEN, MING YAN	
	Examiner	Art Unit	
	Tran N. Nguyen	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to *8/12/03*.
2. ☐ The allowed claim(s) is/are *1-3*.
3. ☐ The drawings filed on *15 October 2001* are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
   (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

8. ☐ CORRECTED DRAWINGS must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No. ____.
   (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
   (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

   Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1☒ Notice of References Cited (PTO-892)
2☐ Notice of Informal Patent Application (PTO-152)
3☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
4☐ Interview Summary (PTO-413), Paper No.____ .
5☐ Information Disclosure Statements (PTO-1449), Paper No. ____.
6☒ Examiner's Amendment/Comment
7☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
8☒ Examiner's Statement of Reasons for Allowance
9☐ Other .

Examiner's Amendment

1. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicants, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it must be submitted no later than the payment of the Issue Fee.

Please change the following:

In the claim: **Replace claims 1-3 as following**:

Claim 1. A magnet motor of an electric vehicle, comprising a whole rotator, an electric magnetic pole module, and a circuit control unit, wherein the whole rotator comprising:

a circular disc housing structure,

more than one set of the permanent magnets being arranged at an equal angular spacing in said circular disc housing structure;

wherein:

the circular disc housing acts as a rotary turning disc; a through hole is provided at a center part thereof, a center axle passing through said through hole, and both sides of the through hole,

an axle bearing is provided separately,

along an outer ring of the rotary turning disc, an annular recess is drilled with a round inner cavity;

a conductive magnetic board is mounted on and located in said annular recess with an appropriate depth, said conductive magnetic board is drilled with plurality of bore holes at equal angular locations, said bore holes are uprightly to the main housing of the turning disc and become blind holes and internal screws threads are mounted separately,

on the conductive magnet board, said more than one set north (N) pole permanent magnets and south (S) pole permanent magnets are mounted in an array manner of adjacent opposite poles;

a plurality of pressing boards, each is pressed in between two opposite pole magnets, and a stud securely pass through a through hole of the pressing board and screw to the internal screw thread of the turning disc to secure said permanent magnet in place on the annular recess,

each of the permanent magnets are respectively configured with a shape having both circumferential sides is in parallel having top lateral side and bottom lateral side are coincided with the annular recess, and each of said permanent magnet having the top lateral shape is declined downwards to the bottom lateral side of an exact slant side;

each of said N-pole permanent magnets having a thickness greater than that of each of the S-pole permanent magnets, and

each of said pressing board is configured with a fan shape with top side and bottom sides are coincided with the annular recess, and circumferential sides are corresponding to said circumferential side of both opposite pole magnets;

said fan shape of the pressing board having the top side is declined downwards to the bottom side of an opposite slant side of adjacent permanent magnets,

the pressing boards are set to press each magnet to form a complete circular of alternately pressing boards and magnets, and the whole annular recess will be totally filled up with the respective pressing boards and magnets;

on the lower part of each magnet, and the shape on the same side of a symmetry line, a site probe hole is provided to pass through the turning disc, and N-pole probe hole and S-pole probe holes are in separately arrayed arrangement on the different concentric circles, and a length of each site probe hole is extended from an edge of an extension line of the permanent magnet and finished before the symmetry line of the permanent magnet;

said magnet motor of an electric vehicle further comprising:

an electric magnetic pole module having a plurality of poles in combination with plurality of magnet pole coils generates magnetic poles,

each of the magnetic poles is mainly comprised with the combination of a high conductive magnet ceramic or a high conductive silicone steel piece of a conductive magnetic coil seat, and a shape of an end portion the conductive magnetic coil seats is ascent formed towards to a center thereof;

a shell housing wherein the shell housing is round cover housing, and is provided with the cover protection of the whole rotator;

each of the conductive coil seats, with magnetic pole coil, is wrapped with a varnish cover thread and become a magnetic pole coil; said magnetic poles are mounted in a the shell housing at an equal angular spacing; and

each of said magnet poles is precisely corresponding to respective said permanent magnets, and the magnetic poles are screwed mounted in said shell housing and also fixed at a support thereof,

and a circuit control unit, comprises a site sensor and a circuit controller, wherein, the site sensor has two units being located separately at a site probe hole, and are set in array to form into two concentric circles in front. When the site sensor is facing a geometry center of the site probe hole, the magnetic poles facing corresponding permanent magnets, and loops of the site sensor and the magnetic poles are all connected to the circuit controller.

Claim 2. The magnet motor of an electric vehicle of claim 1, comprising a whole rotator, an electric magnet pole module, and a circuit control unit, wherein:

when the site sensor is facing the N pole site probe hole, the magnetic poles that facing corresponding permanent magnet will become the N pole, at the same time, when the site sensor facing S pole site probe hole, the magnetic pole coil that facing corresponding permanent magnet will become the S pole;

as the motor current is switched on, the circuit controller will be given out a predetermined voltage, allowing the magnet pole coil to generate the magnetic polarity, and the opposite pole of the permanent magnet will approach to get an corresponding position, while the whole rotator is being in predetermined position;

if the site sensor detects a present front is the N pole magnet, at this instance, fronts of the magnet pole coils of all N poles will generate magnetic N poles,

meanwhile, fronts of the magnet pole coils of the S poles will generate magnetic S poles, allowing the magnetism of the magnet pole coils and the permanent magnets are inter repelling, and drive the whole rotator in rotary turning,

when the site sensor is exceeding a predetermined range of the site probe hole, the circuit controller will stop supply voltage to each magnet pole coil, using the magnetism residue of an utmost coil can attract the whole rotator for continuous turning, when the site sensor is entered into the site probe hole range, and detects a nearby permanent magnet thereof as a the S pole magnet, the circuit controller will then push a reverse voltage away to each pole magnet coil, due to a relation in voltage delay, at this instance, the magnetism of the magnet pole coil has still not yet completed, and as long as the permanent magnet reaches to the fronts of the magnet pole coils, then all S pole magnets to the fronts of magnet pole coils will generate the electromagnetism of their S polarity, and all N pole magnets to the fronts of magnet pole coils will generate magnetic N poles, and as both the magnets and the magnetic poles are under inter repelling, the whole rotator shall be in continuous rotary turning, and under a condition of polarities of magnet pole coils are interchangeable and inter action with permanent magnets, the whole rotator will be in continuously action and increasingly rotary turning velocity, and when the rotary turning velocity is being reached to a predetermined velocity of the whole rotator, the circuit controller will instruct one of site sensors to stop working,

if only the N pole site sensor is working, the N pole permanent magnet will come close, and only then the supply voltage of the magnet pole coil is relative to the N pole magnet, as to push away the N pole magnet to facilitate turning.

Claim 3. The magnet motor of an electric vehicle, comprising a whole rotator, an electric magnetic pole module, and a circuit control unit, wherein

the whole rotator is located at a bicycle wheel case,

at least one set north (N) pole and south (S) pole of permanent magnets is disposed in equal angle array onto a conductive magnetic board of the wheel case, and

at least one pressing board is mounted on the conductive magnetic board, and said pressing board is located between each magnet of said permanent magnet set;

each of said permanent magnet is configured with a shape having symmetrical sides with respect to a symmetry line;

N-pole and S-pole of site probe holes are provided to pass through the wheel case, and are in separately arrayed arrangement on different concentric circles, wherein a length of each

site probe hole is extended from a side of an extension line of the permanent magnet and finished before said symmetry line of the permanent magnet,

as to increase power, both sides of the wheel case are respectively provided with a set of an electromagnet pole module separately mounted therein,

a wheel axle center passing through the electromagnet pole modules of a shell housing,

a screw nut is fastened at both ends thereof, and a bolt seat is protruded out from a support of the shell housing, wherein a bolt passing through and screwing on the shell housing; and,

circuit controller controls all current directions of a site sensor and the electromagnet pole module, wherein said circuit controller is mounted either to a front side or a rear side of said bicycle wheel, wherein all loops of the site sensor and the electromagnet pole module are connected back to the circuit controller.

An Examiner's Amendment to the record, appears above, to necessarily resolve several indefinite issues in the claimed language as well as to clarify the claimed language. Should the changes and/or additions be unacceptable to applicants, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it must be submitted no later than the payment of the Issue Fee

Allowable Subject Matter

Claims 1-3 are allowed.

Reason for Allowability

The following is an examiner's statement of reasons for allowance: ***in combination with other limitations recited in the claims***, the primary reason for the allowance is the including of the claimed features of the whole rotator, particularly as recited in claim 1:

the annular recess is drilled with a round inner cavity;

a conductive magnetic board is mounted on and located in said annular recess with an appropriate depth, said conductive magnetic board is drilled with plurality of bore holes at

equal angular locations, said bore holes are uprightly to the main housing of the turning disc and become blind holes and internal screws threads are mountcd separately,

on the conductive magnet board, said more than one set north (N) pole permanent magnets and south (S) pole permanent magnets are mounted in an array manner of adjacent opposite poles;

a plurality of pressing boards, each is pressed in between two opposite pole magnets, and a stud securely pass through a through hole of the pressing board and screw to the internal screw thread of the turning disc to secure said permanent magnet in place on the annular recess,

each of the permanent magnets are respectively configured with a shape having both circumferential sides is in parallel having top lateral side and bottom lateral side are coincided with the annular recess, and each of said permanent magnet having the top lateral shape is declined downwards to the bottom lateral side of an exact slant side;

each of said N-pole permanent magnets having a thickness greater than that of each of the S-pole permanent magnets, and

each of said pressing board is configured with a fan shape with top side and bottom sides are coincided with the annular recess, and circumferential sides are corresponding to said circumferential side of both opposite pole magnets;

said fan shape of the pressing board having the top side is declincd downwards to the bottom side of an opposite slant side of adjacent permanent magnets,

the pressing boards are set to press each magnet to form a complete circular of alternately pressing boards and magnets, and the whole annular recess will be totally filled up with the respective pressing boards and magnets;

on the lower part of each magnet, and the shape on the same side of a symmetry line, a site probe hole is provided to pass through the turning disc, and N-pole probe hole and S-pole probe holes are in separately arrayed arrangement on the different concentric circles, and a length of each site probe hole is extended from an edge of an extension line of the permanent magnet and finished before the symmetry line of the permanent magnet.

Or as recited in claim 3:

the whole rotator is located at a bicycle wheel case,

at least one set north (N) pole and south (S) pole of permanent magnets is disposed in equal angle array onto a conductive magnetic board of the wheel case, and

at least one pressing board is mounted on the conductive magnetic board, and said pressing board is located between each magnet of said permanent magnet set;

each of said permanent magnet is configured with a shape having symmetrical sides with respect to a symmetry line;

N-pole and S-pole of site probe holes are provided to pass through the wheel case, and are in separately arrayed arrangement on different concentric circles, wherein a length of each site probe hole is extended from a side of an extension line of the permanent magnet and finished before said symmetry line of the permanent magnet.

Comparing to the prior-art of the record, none of the prior art references of the record, either stand alone or in combination, has taught or suggest the above-mentioned features in combination with other limitations recited in the claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran Nguyen whose telephone number is (703) 308-1639.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-1782. The fax phone number for this Group is (703) 305-3431 (32).

TRAN NGUYEN
PRIMARY PATENT EXAMINER
TC-2800